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TITLE:

Method for recovery of waste cobalt-containing catalyst

for Fischer-Tropsch synthesis

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PATENT-FAMILY:

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ABSTRACTED-PUB-NO: CN 1401427A

## **BASIC-ABSTRACT:**

NOVELTY - Recovering the used Co-containing catalyst used in Fischer-Tropsch synthesis includes reducing at 800-1200 deg.C and 0.1-2 MPa in H2/N2 mixed gas flow at 1000-5000 /h for 4-16 hr, adding diluted nitric acid, dissolving, filtering, adding solution of sodium hydroxide to obtain precipitate of cobalt hydroxide.

DETAILED DESCRIPTION - Recovering the used Co-containing catalyst used in Fischer-Tropsch synthesis includes reducing at 800-1200 deg.C and 0.1-2 MPa in H2/N2 mixed gas flow at 1000-5000 /h for 4-16 hr,

adding diluted nitric acid, dissolving, filtering, adding solution of sodium hydroxide to obtain precipitate of cobalt hydroxide, filtering, adding diluted nitric acid, dissolving and evaporation crystallizing to obtain Co(NO3)2.6H2O.

ADVANTAGE - Its advantages are high Co recovery rate (more than 91%), high purity (more than 94%) and low cost.

CHOSEN-

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DRAWING:

TITLE-TERMS: METHOD RECOVER WASTE COBALT CONTAIN CATALYST FISCHER

TROPSCH SYNTHESIS

**DERWENT-CLASS:** E31 J04

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